

**IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-23 (Cancelled)

24. (Currently Amended) The method of Claim 74 [[23]], wherein said automatically controlling an environment of an inhalant chamber further comprises:

maintaining a second [[an]] environmental factor via feedback control, wherein the second environmental factor includes a pressure of the inhalant chamber.

25-26 (Cancelled)

27. (Currently Amended) The method of Claim 74 [[23]], wherein said automatically controlling a concentration of an inhalant in the inhalant chamber further comprises:

dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices.

28-31 (Cancelled)

32. (Currently Amended) The method of Claim 74 [[23]] further comprising:  
displaying near real time measurement data related to an animal in the inhalant chamber.

33. (Currently Amended) The method of Claim 95 [[32]], wherein said displaying near real time measurement data related to an animal in an inhalant chamber further comprises:

displaying animal-related respiration data.

34. (Currently Amended) The method of Claim 95 [[32]], wherein said displaying near real time measurement data related to an animal in an inhalant chamber further comprises:

displaying a pressure of the inhalant chamber.

35. (Cancelled)

36. (Currently Amended) The system of Claim 108 [[35]], wherein said means for automatically controlling an environment of an inhalant chamber further comprises:

maintaining a second [[an]] environmental factor via feedback control, wherein the second environmental factor includes a pressure of the inhalant chamber.

37-38 (Cancelled)

39. (Currently Amended) The system of Claim 108 [[35]], wherein said means for automatically controlling a concentration of an inhalant in the inhalant chamber comprises:

means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices.

40-43 (Cancelled)

44. (Currently Amended) The system of Claim 108 [[35]] further comprising:  
means for displaying near real time measurement data related to an animal in the inhalant chamber.

45. (Currently Amended) The system of Claim 129 [[44]], wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber further comprises:

means for displaying animal-related respiration data.

46. (Previously Presented) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying a pressure of the inhalant chamber.

47-65 (Withdrawn)

66. (Currently Amended) The method of Claim 24, wherein said maintaining the second [[an]] environmental factor via feedback control, ~~wherein the environmental factor is a pressure of the inhalant chamber~~ comprises:

controlling the second environmental factor via monitoring a pressure sensor of the inhalant chamber.

67. (Currently Amended) The method of Claim 66, wherein said controlling the second environmental factor via monitoring the [[a]] pressure sensor of the inhalant chamber comprises:

controlling the second environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the pressure sensor and adjusting a pressure driver.

68. (Currently Amended) ~~A~~ The method comprising:  
automatically controlling an environment of an inhalant chamber; and ~~of Claim 23, wherein said~~

automatically controlling an environment of an inhalant chamber comprising comprises:

maintaining an environmental factor via feedback control, wherein the environmental factor is a temperature of the inhalant chamber.

69. (Currently Amended) The method of Claim 68, wherein said maintaining an environmental factor via feedback control, ~~wherein the environmental factor is a temperature of the inhalant chamber~~ comprises:

controlling the environmental factor via monitoring a temperature sensor.

70. (Previously Presented) The method of Claim 69, wherein said controlling the environmental factor via monitoring a temperature sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the temperature sensor and adjusting a temperature driver.

71. (Currently Amended) ~~A~~ The method comprising:  
automatically controlling a concentration of an inhalant in an inhalant chamber;  
and of Claim 23, wherein said

automatically controlling an environment of the ~~[[an]]~~ inhalant chamber  
comprising comprises:

maintaining an environmental factor via feedback control, wherein the  
environmental factor includes a humidity of the inhalant chamber.

72. (Currently Amended) The method of Claim 71, wherein said maintaining  
an environmental factor via feedback control, ~~wherein the environmental factor includes~~  
~~a humidity of the inhalant chamber~~ comprises:

controlling the environmental factor via monitoring a humidity sensor.

73. (Previously Presented) The method of Claim 72, wherein said controlling  
the environmental factor via monitoring a humidity sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID)  
controller receiving input from the humidity sensor and adjusting a humidity driver.

74. (Currently Amended) ~~A~~ The method comprising:  
automatically controlling a concentration of an inhalant in an inhalant chamber;  
and of Claim 23, wherein said

automatically controlling an environment of the ~~[[an]]~~ inhalant chamber  
comprising comprises:

maintaining an environmental factor via feedback control, wherein the  
environmental factor includes an airflow in to the inhalant chamber.

75. (Currently Amended) The method of Claim 74, wherein said maintaining  
an environmental factor via feedback control, ~~wherein the environmental factor includes~~  
~~an airflow in to the inhalant chamber~~ comprises:

controlling the environmental factor via monitoring an input airflow sensor.

76. (Previously Presented) The method of Claim 75, wherein said controlling the environmental factor via monitoring an input airflow sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the input airflow sensor and adjusting an input airflow driver.

77. (Currently Amended) ~~A~~ The method comprising:  
automatically controlling a concentration of an inhalant in an inhalant chamber;  
and of Claim 23, wherein said

automatically controlling an environment of the ~~[[an]]~~ inhalant chamber comprising comprises:

maintaining an environmental factor via feedback control, wherein the environmental factor includes an exhaust airflow out of the inhalant chamber.

78. (Currently Amended) The method of Claim 77, wherein said maintaining an environmental factor via feedback control, ~~wherein the environmental factor includes an airflow out of the inhalant chamber~~ comprises:

controlling the environmental factor via monitoring an exhaust output airflow sensor.

79. (Previously Presented) The method of Claim 78, wherein said controlling the environmental factor via monitoring an exhaust output airflow sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the output airflow sensor and adjusting an exhaust output airflow driver.

80. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a wet aerosol form.

81. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a aerosol form.

82. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a gaseous substance form.

83. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a mist form.

84. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a fog form.

85. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a fume form.

86. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having an airborne substance form.

87. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a chamber pressure monitor.

88. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from an inhalant-concentration sensor.

89. (Previously Presented) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

90. (Currently Amended) A [The] method comprising:  
automatically controlling an environment of an inhalant chamber; and ~~of Claim 23, wherein said~~

automatically controlling a concentration of an inhalant in the inhalant chamber comprising comprises:

controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant.

91. (Previously Presented) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an inhalant concentration sensor.

92. (Previously Presented) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

93. (Previously Presented) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an input airflow sensor.

94. (Previously Presented) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an output airflow sensor.

95. (Currently Amended) ~~A~~ The method comprising:  
automatically controlling an environment of an inhalant chamber;  
automatically controlling a concentration of an inhalant in the inhalant chamber;  
and of Claim 32, wherein said

displaying near real time measurement data related to an animal in an inhalant chamber comprising comprises:

displaying animal-related dosimetry data.

96. (Currently Amended) The method of Claim 95 ~~[[32]]~~, wherein said displaying near real time measurement data related to an animal in an inhalant chamber further comprises:

displaying a temperature of the inhalant chamber.

97. (Currently Amended) The method of Claim 95 ~~[[32]]~~, wherein said displaying near real time measurement data related to an animal in an inhalant chamber further comprises:

displaying a humidity of the inhalant chamber.



98. (Currently Amended) The method of Claim 95 [[32]], wherein said displaying near real time measurement data related to an animal in an inhalant chamber further comprises:

displaying an airflow into the inhalant chamber.

99. (Currently Amended) The method of Claim 95 [[32]], wherein said displaying near real time measurement data related to an animal in an inhalant chamber further comprises:

displaying an airflow out of the inhalant chamber.

100. (Currently Amended) The system of Claim 36, wherein said means for maintaining a second [[an]] environmental factor via feedback control, ~~wherein the environmental factor is a pressure of the inhalant chamber~~ comprises:

means for controlling the second environmental factor via monitoring a pressure sensor of the inhalant chamber.

101. (Currently Amended) The system of Claim 100, wherein said means for controlling the second environmental factor ~~via monitoring a pressure sensor of the inhalant chamber~~ comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the pressure sensor and adjusting a pressure driver.

102. (Currently Amended) The system of Claim 108 [[35]], wherein said means for automatically controlling an environment of an inhalant chamber further comprises:

means for maintaining a second [[an]] environmental factor via feedback control, wherein the second environmental factor is a temperature of the inhalant chamber.

103. (Currently Amended) The system of Claim 102, wherein said means for maintaining the second [[an]] environmental factor via feedback control, ~~wherein the environmental factor is a temperature of the inhalant chamber~~ comprises:

means for controlling the second environmental factor via monitoring a temperature sensor.

104. (Currently Amended) The system of Claim 103, wherein said means for controlling the second environmental factor via monitoring the ~~the~~ [[a]] temperature sensor comprises:

means for controlling the second environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the temperature sensor and adjusting a temperature driver.

105. (Currently Amended) The system of Claim 108 ~~[[35]]~~, wherein said means for automatically controlling an environment of an inhalant chamber further comprises:

means for maintaining a second ~~[[an]]~~ environmental factor via feedback control, wherein the second environmental factor includes a humidity of the inhalant chamber.

106. (Currently Amended) The system of Claim 105, wherein said means for maintaining the second ~~[[an]]~~ environmental factor via feedback control, ~~wherein the environmental factor includes a humidity of the inhalant chamber~~ comprises:

means for controlling the second environmental factor via monitoring a humidity sensor.

107. (Currently Amended) The system of Claim 106, wherein said means for controlling the second environmental factor via monitoring a humidity sensor comprises:

means for controlling the second environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the humidity sensor and adjusting a humidity driver.

108. (Currently Amended) A The system comprising:

means for automatically controlling a concentration of an inhalant in an inhalant chamber; and of Claim 35, wherein said

means for automatically controlling an environment of the ~~the~~ [[an]] inhalant chamber comprising comprises:

means for maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow in to the inhalant chamber.

109. (Currently Amended) The system of Claim 108, wherein said means for maintaining an environmental factor via feedback control, ~~wherein the environmental factor includes an airflow in to the inhalant chamber~~ comprises:

means for controlling the environmental factor via monitoring an input airflow sensor.

110. (Previously Presented) The system of Claim 109, wherein said means for controlling the environmental factor via monitoring an input airflow sensor comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the input airflow sensor and adjusting an input airflow driver.

111. (Currently Amended) A The system comprising:

means for automatically controlling a concentration of an inhalant in an inhalant chamber; and of Claim 35, wherein said

means for automatically controlling an environment of the [[an]] inhalant chamber comprising comprises:

means for maintaining an environmental factor via feedback control, wherein the environmental factor includes an exhaust airflow out of the inhalant chamber.

112. (Currently Amended) The system of Claim 111, wherein said means for maintaining the [[an]] environmental factor via feedback control, ~~wherein the environmental factor includes an airflow out of the inhalant chamber~~ comprises:

means for controlling the environmental factor via monitoring an exhaust output airflow sensor.

113. (Previously Presented) The system of Claim 112, wherein said means for controlling the environmental factor via monitoring an exhaust output airflow sensor comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the output airflow sensor and adjusting an exhaust output airflow driver.

114. (Currently Amended) A The system comprising:  
means for automatically controlling an environment of an inhalant chamber; and  
means for automatically controlling a concentration of an inhalant in the inhalant chamber comprising of Claim 39, wherein said

means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices, said means for dispersing either an organic or inorganic substance comprising comprises:

means for dispersing a substance having a wet aerosol form.

115. (Currently Amended) The system of Claim 114 [[39]], wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices further comprises:

means for dispersing a substance having a dry aerosol form.

116. (Currently Amended) The system of Claim 114 [[39]], wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices further comprises:

means for dispersing a substance having a gaseous substance form.

117. (Currently Amended) The system of Claim 114 [[39]], wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices further comprises:

means for dispersing a substance having a mist form.

118. (Currently Amended) The system of Claim 114 ~~[[39]]~~, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices further comprises:

means for dispersing a substance having a fog form.

119. (Currently Amended) The system of Claim 114 ~~[[39]]~~, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices further comprises:

means for dispersing a substance having a fume form.

120. (Currently Amended) The system of Claim 114 ~~[[39]]~~, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices further comprises:

means for dispersing a substance having an airborne substance form.

121. (Currently Amended) The system of Claim 114 ~~[[39]]~~, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a chamber pressure monitor.

122. (Currently Amended) The system of Claim 114 ~~[[39]]~~, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from an inhalant-concentration sensor.

123. (Currently Amended) The system of Claim 114 ~~[[39]]~~, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

124. (Currently Amended) ~~A The system comprising:~~  
means for automatically controlling an environment of an inhalant chamber; and  
~~of Claim 35, wherein said~~

means for automatically controlling a concentration of an inhalant in the inhalant chamber comprising ~~comprises:~~

means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant.

125. (Previously Presented) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an inhalant concentration sensor.

126. (Previously Presented) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

127. (Previously Presented) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an input airflow sensor.

128. (Previously Presented) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an output airflow sensor.

129. (Currently Amended) A The system comprising:  
means for automatically controlling an environment of an inhalant chamber;  
means for automatically controlling a concentration of an inhalant in the inhalant chamber; and of Claim 44, wherein said

means for displaying near real time measurement data related to an animal in the ~~[[an]]~~ inhalant chamber comprising ~~comprises:~~

means for displaying animal-related dosimetry data.

130. (Currently Amended) The system of Claim 129 ~~[[44]]~~, wherein said means for displaying near real time measurement data related to an animal in ~~[[an]]~~ the inhalant chamber further comprises:

means for displaying a temperature of the inhalant chamber.

131. (Currently Amended) The system of Claim 129 ~~[[44]]~~, wherein said means for displaying near real time measurement data related to an animal in the ~~[[an]]~~ inhalant chamber comprises:

means for displaying a humidity of the inhalant chamber.

132. (Currently Amended) The system of Claim 129 ~~[[44]]~~, wherein said means for displaying near real time measurement data related to an animal in the ~~[[an]]~~ inhalant chamber further comprises:

means for displaying an airflow into the inhalant chamber.

133. (Currently Amended) The system of Claim 129 ~~[[44]]~~, wherein said means for displaying near real time measurement data related to an animal in the ~~[[an]]~~ inhalant chamber comprises:

means for displaying an airflow out of the inhalant chamber.

134. (Currently Amended) The [[A]] method of Claim 74 comprising:  
~~automatically controlling an environment of an inhalant chamber; and~~  
~~automatically controlling a concentration of an inhalant in the inhalant chamber;~~  
wherein at least a portion of an animal extends into the chamber.

135. (Currently Amended) The [[A]] system of Claim 108 comprising:  
~~means for automatically controlling an environment of an inhalant chamber; and~~  
~~means for automatically controlling a concentration of an inhalant in the~~  
inhalation chamber;  
wherein at least a portion of an animal extends into the chamber.

136. (Currently Amended) The [[A]] method of Claim 74 comprising:  
~~automatically controlling an environment of an inhalant chamber; and~~  
~~automatically controlling a concentration of an inhalant in the inhalant chamber;~~  
wherein gaseous input and gaseous egress from the inhalant chamber are  
controlled.

137. (Currently Amended) The [[A]] system of Claim 108 comprising:  
~~means for automatically controlling an environment of an inhalant chamber; and~~  
~~means for automatically controlling a concentration of an inhalant in the~~  
inhalation chamber;  
wherein gaseous input and gaseous egress from the inhalant chamber are  
controlled.